NPDES PERMIT NO. NM0030341
STATEMENT OF BASIS

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

APPLICANT:	City of Las Vegas- Water Treatment Plant 905 12th Street Las Vegas, NM 87701
ISSUING OFFICE:	U.S. Environmental Protection Agency Region 6 1445 Ross Avenue Dallas, Texas 75202-2733
PREPARED BY:	Isaac Chen Environmental Engineer NPDES Permits Branch (6WQ-P) Water Quality Protection Division VOICE: 214-665-7364 FAX: 214-665-2191 EMAIL: chen.isaac@epa.gov
PERMIT ACTION:	Proposed reissuance of the expired permit issued May 10, 2001, with an effective date of June 1, 2001 and an expiration date of May 31, 2006.
DATE PREPARED:	August 9, 2006
PAGES:	5 (TEXT)

40CFR CITATIONS: Unless otherwise stated, citations to 40CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of July 1, 2006.

CERTIFICATION: The permit is in the process of certification by the State agency following regulations promulgated at 40CFR124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service; and to the National Marine Fisheries Service prior to the publication of that notice.

FINAL DETERMINATION: The public notice describes the procedures for the formulation of final determinations.

I. PROPOSED CHANGES FROM PREVIOUS PERMIT

There are significant changes from the previous permit:

1. Change pH limitation from range of 6.0 – 9.0 to 6.6 – 9.0.
2. Add monitoring requirement and effluent limitation for total residual chlorine.
3. Add acute whole effluent toxicity testing.

II. APPLICANT ACTIVITY

Under the Standard Industrial Classification (SIC) Code(s) 4941, the applicant currently operates a surface water treatment plant (WTP). The plant has a design capacity to treat 5 MGD surface water from the Gallinas River. This plant treats the raw water by pre-chlorination, coagulation, flocculation, sedimentation, and filtration processes. Filter backwash water and filter-to-waste water are pumped back for treatment. Under emergency conditions, backwash and filter-to-waste may be discharged at Outfall 001.

III. SEWAGE SLUDGE PRACTICES

Settled solids (sludge) are transferred to an on-site storage lagoon and then conveyed by force main to the City's wastewater collection and treatment system.

IV DISCHARGE LOCATION

As described in the application, the plant site is located at 385 NM 65 in Montezuma, San Miguel County, New Mexico. The discharge is to an unnamed arroyo and thence to the Gallinas River downstream of the Las Vegas municipal reservoir, in Waterbody Segment 20.6.4.220 of the Pecos River Basin.

The designated uses for Gallinas River in Segment 20.6.4.220 are irrigation, livestock watering, wildlife habitat, marginal coldwater aquatic life, and primary contact.

V. STREAM STANDARDS

The general and specific stream standards are provided in "State of New Mexico Standards for Interstate and Intrastate Surface Waters" (20.6.4 NMAC) New Mexico Water Quality Control Commission (WQCC). EPA approved the WQS amended as October 11, 2002. The NM WQCC adopted new WQS, as amended through February 16, 2006, for the State of New Mexico. In accordance with State law, the WQS were properly filed with the State Records Center and publicly noticed in the NM Register May 13, 2005. EPA has not approved the 2005 WQS. The New Mexico Environment Department (NMED) in its General Certification letter dated July 18, 2006, informed EPA that the state certification for this proposed permit will be based on the State approved WQS.

The agency is constrained by the "Alaska Rule" [Alaska Clean Water Alliance v. Clark, No. C96-1762R (W.D. Wash.)] in implementing the new NM WQS, until such time as the revised NM WQS are fully approved by EPA pursuant to Section 303 of the Clean Water Act. However, according to EPA memorandum from Geoffrey H. Grubbs, Director Office of Science and Technology dated September 15, 2000, if a State or tribe bases a section 401 certification on the more stringent state requirement, as allowed under CWA section 401(d), EPA would include the more stringent effluent limitations specified in the certification into an EPA-issued permit.

In light of the above statements and the general certification requirements, the Region will use the more stringent effluent limitation specified in the current Standards or State approved WQS. In addition, if the Region is required under a 401 certification to replace an effluent limitation of a pollutant for another effluent limitation of similar nature, the agency would include effluent limitations of both pollutants until the agency approves the revised Standards.

VI. DISCHARGE DESCRIPTION

There is no discharge during the past five years. The proposed permit authorizes discharges in case the facility cannot discharge the backwash and filter-to waste water to the City's sewer system.

VII. TENTATIVE DETERMINATION

On the basis of preliminary staff review and after consultation with the State of New Mexico, the Environmental Protection Agency has made a tentative determination to reissue the permit to authorize emergency discharges because new information indicates that Gallinas River is impaired by temperature only. The authorized discharge has no reasonable potential to cause or contribute elevated temperature to Gallinas River. This permit is issued for a full 5-year term.

VIII. DRAFT PERMIT RATIONALE

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other necessary explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under 40CFR122.44 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

A. TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Following regulations promulgated at 40CFR122.44(l)(2)(ii), the draft permit limits are based on either technology-based effluent limits pursuant to 40CFR122.44(a) or on State water quality standards and requirements pursuant to 40CFR122.44(d), whichever are more stringent.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

Regulations promulgated at 40CFR122.44(a) require technology-based effluent limitations to be placed in NPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgment) in the absence of guidelines, or on a combination of the two.

3. EFFLUENT LIMITATIONS

The BPJ-based monitoring requirement for total suspended solids (TSS) is retained from the current permit.

3. MONITORING FREQUENCIES FOR LIMITED PARAMETERS

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [40CFR122.48(b)] and to assure compliance with permit limitations [40CFR122.44(i)(1)].

The draft permit establishes grab sampling with a monitoring frequency of one/week for TSS. Because the backwash water is stored in a tank before it discharges, and also because the discharge durance is not predicable, a grab sample is representative of the effluent water quality.

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

Effluent limitations and/or conditions established in the draft permit are in compliance with State water quality standards and the applicable water quality management plan.

2. WATER QUALITY-BASED LIMITS

The proposed permit changes the water quality-based effluent limitation for pH from the range of 6.0 - 9.0 to 6.6 - 9.0 in accordance with State approved site-specific pH criteria at Segment No. 20.6.4.220. Monitoring requirements for total and dissolved aluminum are retained in the permit because aluminum sulfate is used as primary coagulant and more data are needed to assess the reasonable potential. Because the facility pre-treats raw water with chlorine and final chlorinated water may be used for filter backwash, total residual chlorine may be present at effluent to endanger wildlife habitat and aquatic life. Therefore, a daily monitoring requirement and effluent

limitation for TRC are proposed in the permit. Grab sampling is established due to the nature of discharges.

Floatables are prohibited from discharge through this outfall.

3. AQUATIC TOXICITY TESTING

This proposed permit authorizes discharges only due to emergency situation. In case a discharge occurs, an acute whole effluent toxicity testing is required to assess the impact of discharge on aquatic life. The permitted discharge is to an unnamed ditch which is about 700 feet from Gallinas River. According to the facility operator, the daily average flow would be about 0.033 million gallons per day (MGD) during the emergency discharge. The low flow (4Q3) of Gallinas River is 1.91 cubic feet per second (cfs) which is 1.23 MGD. The critical dilution at Gallinas River is 2.6% and after applying the 10:1 acute-to-chronic ratio, the applicable critical dilution for an acute WET testing is 26%. An acute WET testing of once per permit term for Daphnia pulex and Pimephales promelas is proposed in the permit.

X. ENDANGERED SPECIES

In accordance with requirements under section 7(a)(2) of the Endangered Species Act, EPA has reviewed this permit for its effect on listed threatened and endangered species and designated critical habitat. Recent county listings of endangered and threatened species identify the black-footed ferret, bald eagle, Mexican spotted owl, southwestern willow flycatcher, Arkansas River shiner, and Holy Ghost ipomopsis as federally listed endangered or threatened in San Miguel County. EPA determines that the action to issue a “no discharge” permit will have “no effect” on threatened or endangered species nor will destroy or adversely modify designated critical habitat.

After review, EPA has determined that the reissuance of Permit No. NM0030341 will have “no effect” on listed threatened and endangered species nor will adversely modify designated critical habitat. EPA makes this determination based on the following:

1. The proposed permit authorizes emergency discharges when backwash and filter-to-waste can not be discharged to the City’s sewer system. The frequency of discharge is rare and there was no discharge during the past 5 years. Therefore, the chance for bird species’ exposure to the discharge is rare.
2. The discharge will not have reasonable potential to cause impairment of receiving water nor to cause violation of water quality standards at the edge of mixing zone because of the nature of effluent and the low critical dilution. Although, aluminum may be found in the effluent, it would be unlikely that the discharge contains 3,258 ug/l of dissolved aluminum to exceed chronic aquatic life criteria at the edge of mixing zone. The location of the discharge is miles away to the confluent of Gallinas River and Pecos River where the

shiner has been introduced into in New Mexico in recent years. Therefore, the discharge has no impact on Arkansas River shiner.

3. The permitting action does not authorize any construction which may modify habitats of any listed species.
4. Base on information available, EPA concludes that reissuance of this permit will have "no effect" on listed species nor modify designated critical habitat.

XI. 303(d) LIST

Based on information provided by NMED, the receiving stream, 20.6.4.220, at the discharge location is impaired by temperature only. The discharge of backwash and filter-to-waste will not significantly modify the stream temperature. Therefore, no additional conditions are included in the proposed permit to address the impairments listed for the receiving water. A reopener clause is established in Part II of the permit, which allows the permit to be modified, if necessary, to conform with the approved Water Quality Management Plan (WQMP) final effluent limitations or an approved waste load allocation (WLA) as part of a Total Maximum Daily Load (TMDL).

XII. ADMINISTRATIVE RECORD

The following information are used to develop the proposed permit:

A. PERMIT(S)

The current permit issued May 10, 2001, with an effective date of June 1, 2001 and an expiration date of May 31, 2006.

B. APPLICATION(S)

EPA Application Forms 2A was received by EPA on August 19, 2005. Form 1 and Form 2C with appropriate official signature were received on August 1, 2006.

C. STATE WATER QUALITY REFERENCES

The general and specific stream standards are provided in "State of New Mexico Standards for Interstate and Intrastate Surface Waters" (20.6.4 NMAC, amended as February 16, 2006)

Region 6 Implementation Guidance for State of New Mexico Standards for Interstate and Intrastate Stream, May 5, 1995.

Narrative Toxics Implementation Guidance- Whole Effluent Toxicity, December 16, 2005.